ISSN 2091-2889 (Online)
ISSN 2091-2412 (Print)

Journal of Chitwan Medical College 2015; 5(12): 40-41
Available online at: www.jcmc.cmc.edu.np

CASE REPORT

A CASE REPORT ON MAD (WILD) HONEY INTOXICATION

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ABSTRACT

Mad honey disease is one of the rarest disease caused by consumption of leaves, flowers or its products such as honey. The toxicity is secondary to consumption of honey produced by pollen and nectars found in rhodenderon species. Mad honey is mostly found in Black Sea and south east region of Turkey. However 3 cases has been reported in the few hospitals in Kathmandu, Nepal. However until now there is not such case reports reported in Chitwan, mid central region of Nepal. Here, we report a case of 40 years old man who reported to our emergency department with complaint of dizziness, vomiting and blackout with first examination of bradycardia and hypotension in consequences of mad honey consumption.

Key words: *Bradycardia, Hypotension, Granayotoxin, Mad Honey Disease.*

DOI: http://dx.doi.org/10.3126/jcmc.v5i1.12573

INTRODUCTION

Granayotoxin is derived from plant species such as Ericaceae family, Rhodenderon, Pierris, Agarista and kalmi.[1] Mad honey constitutes of granayotoxin which has been used as an alternative to treat hypertension, bowel problems, sexual stimulants but may cause hypotension, bradycardia, different AV blocks, dizziness, weakness and fetal consequences if left untreated.[2] History reveals that thousands of Greek soldiers were intoxicated by this mad honey who stayed at the coast of Black sea fighting the Persians (400 BC). Most of these cases have been reported from the East Black region of Turkey and few case reports from Japan, Brazil, USA, Spain and Nepal.[3] However there has not been any mortality reports in the literature as the symptoms respond well to the treatment.[4]

CASE REPORT

This 40 year old man presented in Emergency Department with the history of sudden onset of dizziness(black out), multiple episode of vomiting and generalized weakness after ingestion of around 40-50 ml of wild honey (home made). While taking detail history, we acknowledged that all these symptoms appeared after consuming honey and was immediately brought to our Emergency Department. On examination, he was anxious though well oriented to time, place and person but was constantly vomiting and was dizzy. His blood pressure was 80/60 mm of Hg, Heart Rate was 36 beats/minute, temperature was 97 degree fahreinheit. 12 lead ECG showed sinus bradycardia with rate of 36 bpm. All the basic investigations were sent including cardiac enzymes and arterial blood gas analysis which was within normal limit.

He was given 1mg of atropine, subcutaneous adrenaline 1mg and inotropes (dopamine) was started and immediately shifted to ICU where his heart rate went upto 130 beats /min and then started complaining of chest tightness. After 15 minutes his chest tightness subsided and heart rate increased to 70 bpm but he was still hypotensive for which 3 pints of IV fluids (0.9% of normal saline) were administered with continuous inotrope support and proton pump inhibitors. After administering lifesaving drugs such as dopamine and adrenaline his blood pressure was 110/70, heart rate returned to 75/min and ECG showed normal sinus rhythm. He was observed for next 48 hours in ICU with strict cardiac monitoring.

He was discharged after 48 hours of observation in ICU with normal sinus rhythm.

DISCUSSION

Most people consume honey for various health benefits. However all the variety of honey may not be friendly. There are wild honey or bitter honey manufactured at home containing the nectars from Rhodenderon species containing life threatening toxin such as granayotoxin. These granayotoxin have cholinergic like effect in human body causing bradycardia, hypotension atrioventricular blocks. It binds to the receptor site in voltage gated sodium channels within the cell, preventing sodium channel inactivation causing depolarization leading to vagal activation (M2 receptor in myocardium) inducing bradycardia.[1,4] 700 Rhodenderon species are found in China, Tibet, Myanmar, Assam and Nepal. However no literature review from Nepal specifies any specific Rhodenderon species.[5]

Patients history of consumption of this mad honey is ultimate for diagnosis of this disease. Immediate intervention with appropriate fluids, low dose atropine and adrenaline may improve on hypotension, bradycardia and respiratory embarssment.[3] We treated our patient in similar manner, observed him for 48 hours in ICU and finally discharged him with assurance of few days of bed rest.

CONCLUSION

Mad Honey Disease is one of the rarest disease but with fatal signs and symptoms. With proper intervention and observation this disease can fully be treated without any complication.

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